

CB
C1
a plurality of video interfaces, each of said video interfaces independently reading one of the types of print data stored in a corresponding storage location of said image buffer;
a print data integration circuit integrating the plurality of types of print data read by said video interfaces to be printed on one page; and
an output mechanism outputting the integrated print data on one page.

C2
a plurality of video interfaces, each of said video interfaces independently reading one of the types of print data stored in a corresponding one of a plurality of storage locations of an image buffer according to one of the first kind of attribute and the second kind of attribute of each type of print data; and
a print data integration circuit integrating the plurality of types of print data read by said video interfaces to be printed on one page.

C3
a plurality of video interfaces, each of said video interfaces independently reading one of the types of print data stored in a corresponding storage location of said image buffer; and
a plurality of image processing circuits, each of said image processing circuits applying an image process to the type of print data read by a corresponding one of said video interfaces.

12. (TWICE AMENDED) A method of processing a plurality of types of print data according to an attribute of each type of print data, the attribute comprising one of a first kind of attribute and a second kind of attribute and being designated by a host computer, the print data to be printed on one page, comprising:
storing each type of print data in a different storage location;

reading each one of the plural types of stored print data;
applying a different image process to each one of the read plural types of stored print data; and
outputting the processed print data on one page.

Please **ADD** new claims 13-30 as follows:

13. (NEW) A printer outputting a plurality of types of print data corresponding to one or more images to be printed on one page, each of the types of print data having an attribute comprising one of a first kind of attribute and a second kind of attribute, said printer comprising:

a separation unit separating the types of print data corresponding to an image with text into a type of print data corresponding to the image as the first kind of attribute and a type of print data corresponding to the text as the second kind of attribute;

a storage unit storing each of the types of separated print data in a different one of storage locations according to one of the first kind of attribute and the second kind of attribute of each type of the separated print data;

an image buffer having a plurality of the storage locations and storing each type of the separated print data, one by one, in a different one of the storage locations according to one of the first kind of attribute and the second kind of attribute of each type of the separated print data;

a plurality of video interfaces, each of said video interfaces dependently reading one of the types of print data stored in a corresponding storage location of said image buffer;

a print data integration circuit integrating the plurality of types of print data read by said video interfaces to be printed on one page; and

an output mechanism outputting the integrated print data on one page.

14. (NEW) A controller controlling a plurality of types of print data to be printed on one page, each of the types of print data having an attribute comprising one of a first kind of attribute and a second kind of attribute, said controller comprising:

a separation unit separating the types of print data corresponding to an image with text into a type of print data corresponding to the image as the first kind of attribute and a type of print data corresponding to the text as the second kind of attribute;

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a storage unit storing each of the types of separated print data in a different one of storage locations of an image buffer according to one of the first kind of attribute and the second kind of attribute of each type of the separated print data;

a plurality of video interfaces, each of said video interfaces independently reading one of the types of print data stored in a corresponding one of a plurality of the storage locations of said image buffer according to one of the first kind of attribute and the second kind of attribute of each type of print data; and

a print data integration circuit integrating the plurality of types of print data read by said video interfaces to be printed on one page.

15. (NEW) A method of processing a plurality of types of print data according to an attribute of each type of print data, the attribute comprising one of a first kind of attribute and a second kind of attribute and the print data to be printed on one page, comprising:

separating the types of print data corresponding to an image with text into a type of print data corresponding to the image as the first kind of attribute and a type of print data corresponding to the text as the second kind of attribute;

storing each of the types of separated print data in a different storage location according to one of the first kind of attribute and the second kind of attribute of each type of the separated print data;

reading each one of the plural types of stored print data;

applying a different image process to each one of the read plural types of stored print data; and

outputting the processed print data on one page.

16. (NEW) An image forming apparatus outputting a plurality of types of form data corresponding to one or more images to be formed on one page, each of the types of form data having an attribute comprising one of a first kind of attribute and a second kind of attribute and explicitly designated by a host computer, said image forming apparatus comprising:

an image buffer having a plurality of storage locations and storing each type of form data, one by one, in a different one of the storage locations according to one of the first kind of attribute and the second kind of attribute of each type of form data;

a plurality of video interfaces, each of said video interfaces independently reading one of the types of form data stored in a corresponding storage location of said image buffer;

a form data integration circuit integrating the plurality of types of form data read by said video interfaces to be formed on one page; and

an output mechanism outputting the integrated form data on one page.

17. (NEW) An image forming apparatus according to claim 16, wherein the plurality of types of form data stored in said image buffer contain form data corresponding to a form as the first kind of attribute and text data corresponding to a text, as the second kind of attribute, to be formed over the form.

18. (NEW) An image forming apparatus according to claim 16, further comprising:
a separation unit separating form data corresponding to an image with text into a type of form data corresponding to the image as the first kind of attribute and a type of form data corresponding to the text as the second type of attribute;

a storage unit storing each of the types of separated form data in said image buffer according to one of the first kind of attribute and the second kind of attribute of each type of separated form data.

19. (NEW) An image forming apparatus according to claim 18, further comprising:
a plurality of image processing circuits, each of said image processing circuits applying an image process to the type of form data read by a corresponding one of said video interfaces.

20. (NEW) An image forming apparatus according to claim 16, wherein the plurality of types of form data stored in said image buffer are obtained by dividing form data, corresponding to the image to be formed on one page, into a plurality of bands, each of the bands corresponding to one of the first kind of attribute and the second kind of attribute, and wherein said form data integration circuit alternately selects the form data read by each of said video interfaces and outputs the selected form data to said output mechanism.

21. (NEW) A controller controlling a plurality of types of form data to be formed on one page, each of the types of form data having an attribute comprising one of a first kind of attribute and a second kind of attribute and being explicitly designated by a host computer, said controller comprising:

a plurality of video interfaces, each of said video interfaces independently reading one of the types of form data stored in a corresponding one of a plurality of storage locations of an image buffer according to one of the first kind of attribute and the second kind of attribute of each type of form data; and

a form data integration circuit integrating the plurality of types of form data read by said video interfaces to be formed on one page.

22. (NEW) A controller according to claim 21, wherein the plurality of types of form data stored in said image buffer contain form data corresponding to a form as the first kind of attribute and text data corresponding to a text as the second kind of attribute to be formed over the form.

23. (NEW) A controller according to claim 21, further comprising:


a separation unit separating form data corresponding to an image with text into a type of form data corresponding to the image as the first kind of attribute and a type of form data corresponding to the text as the second kind of attribute; and


a storage unit storing each of the types of separated form data in said image buffer according to one of the first kind of attribute and the second kind of attribute of each type of separated form data.

24. (NEW) A controller according to claim 23, further comprising:

a plurality of image processing circuits, each of said image processing circuits applying an image process to the type of form data read by a corresponding one of said video interfaces.


25. (NEW) A controller according to claim 21, wherein the plurality of types of form data stored in said image buffer are obtained by dividing form data, corresponding to the image to be formed on one page, into a plurality of bands, each of the bands corresponding to one of the

 first kind of attribute and the second kind of attribute, and wherein said form data integration circuit alternately selects the form data read by each of said video interfaces and outputs the selected form data to said output mechanism.

 26. (NEW) An image forming apparatus processing a plurality of types of form data according to an attribute of each type of form data, the attribute comprising one of a first kind of attribute and a second kind of attribute and being explicitly designated by a host computer, and the form data to be formed on one page, comprising:

an image buffer storing each type of form data in a corresponding one of a plurality of storage locations of said image buffer;

a plurality of video interfaces, each of said video interfaces independently reading one of the types of form data stored in a corresponding storage location of said image buffer; and

 a plurality of image processing circuits, each of said image processing circuits applying an image process to the type of form data read by a corresponding one of said video interfaces.

27. (NEW) A method of processing a plurality of types of form data according to an attribute of each type of form data, the attribute comprising one of a first kind of attribute and a second kind of attribute and being explicitly designated by a host computer, and the form data to be formed on one page, comprising:

storing each type of form data in a different storage location;

reading each one of the plural types of stored form data;

applying a different image process to each one of the read plural types of stored form data; and

outputting the processed form data on one page.

28. (NEW) An image forming apparatus outputting a plurality of types of form data corresponding to one or more images to be formed on one page, each of the types of form data having an attribute comprising one of a first kind of attribute and a second kind of attribute, said image forming apparatus comprising:

a separation unit separating the types of form data corresponding to an image with text into a type of form data corresponding to the image as the first kind of attribute and a type of form data corresponding to the text as the second kind of attribute;

a storage unit storing each of the types of separated form data in a different one of storage locations according to one of the first kind of attribute and the second kind of attribute of each type of the separated form data;

an image buffer having a plurality of the storage locations and storing each type of the separated form data, one by one, in a different one of the storage locations according to one of the first kind of attribute and the second kind of attribute of each type of the separated form data;

a plurality of video interfaces, each of said video interfaces independently reading one of the types of form data stored in a corresponding storage location of said image buffer;

a form data integration circuit integrating the plurality of types of form data read by said video interfaces to be formed on one page; and

an output mechanism outputting the integrated form data on one page.

29. (NEW) A controller controlling a plurality of types of form data to be formed on one page, each of the types of form data having an attribute comprising one of a first kind of attribute and a second kind of attribute, said controller comprising:

a separation unit separating the types of form data corresponding to an image with text into a type of form data corresponding to the image as the first kind of attribute and a type of form data corresponding to the text as the second kind of attribute;

a storage unit storing each of the types of separated form data in a different one of storage locations of an image buffer according to one of the first kind of attribute and the second kind of attribute of each type of the separated form data;

a plurality of video interfaces, each of said video interfaces independently reading one of the types of form data stored in a corresponding one a plurality of the storage locations of said image buffer according to one of the first kind of attribute and the second kind of attribute of each type of form data; and

a form data integration circuit integrating the plurality of types of form data read by said video interfaces to be formed on one page.

30. (NEW) A method of processing a plurality of types of form data according to an attribute of each type of form data, the attribute comprising one of a first kind of attribute and a second kind of attribute and the form data to be formed on one page, comprising: